

THE SIPRO MID-TERM II EXAMINATIONS -2024

PRIMARY SEVEN MATHEMATICS

Time Allowed: 2 Hours 30 Minutes

Index No.	Random No.						Personal No.		

Candidate's Name: _____

Candidate's Signature: _____

School Random No: _____

District: ID: _____

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper has two sections: A and B.
2. Section A has 20 questions (40 Marks).
3. Section B has 12 questions (60 Marks).
4. Attempt all questions in both sections. All answers to both sections A and B must be written in the spaces provided.
5. All answers must be written in blue or black ball point pens or ink. Only diagrams and graph work must be done in pencil.
6. Unnecessary alteration of work will lead to loss of marks.
7. Any handwriting that cannot be easily read may lead to loss of marks.
8. Do not fill anything in the boxes indicated:
"FOR EXAMINER'S USE ONLY"

For Examiner's Use Only;

PAGES	MARKS	INITIALS
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Page 9		
Total		

Please turn over



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SECTION A: 40 MARKS

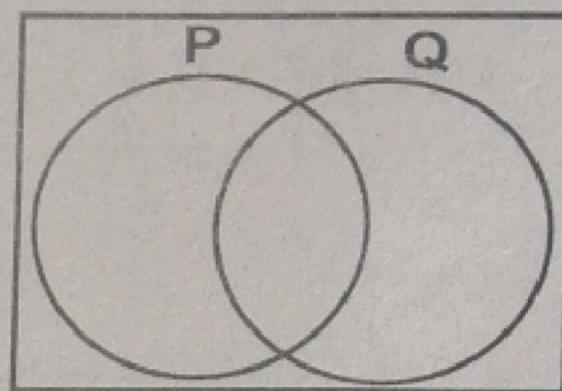
Attempt all questions in this section.
Questions 1 to 20 carry two marks each.

1.

Work out:
$$\begin{array}{r} 6 & 4 \\ -2 & 1 \\ \hline \end{array}$$

2.

In the venn diagram below, shade $(P-Q)$



3.

Work out:
$$\frac{2}{3} + \frac{1}{2}$$

4.

Change 2340 hours to 12 hour time clock system.

5.

Write 6379.5 in power expanded form.

6.

Simplify: $6 + 9$

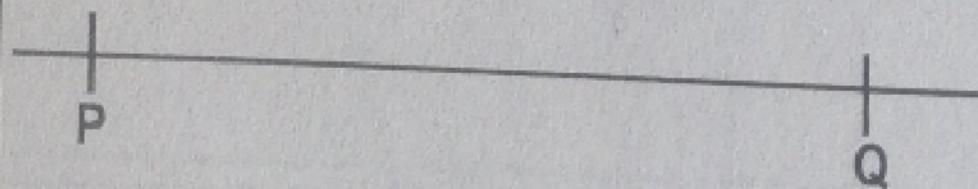
7.

Given that $2b = 8$, $a = -3$ and $c = 4$. Find the value of $bc - a$.

8.

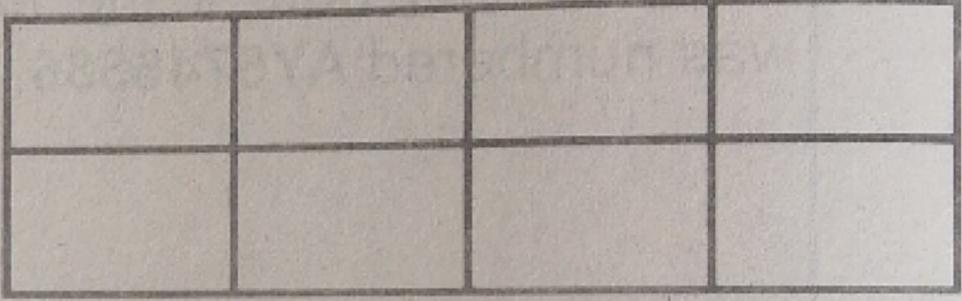
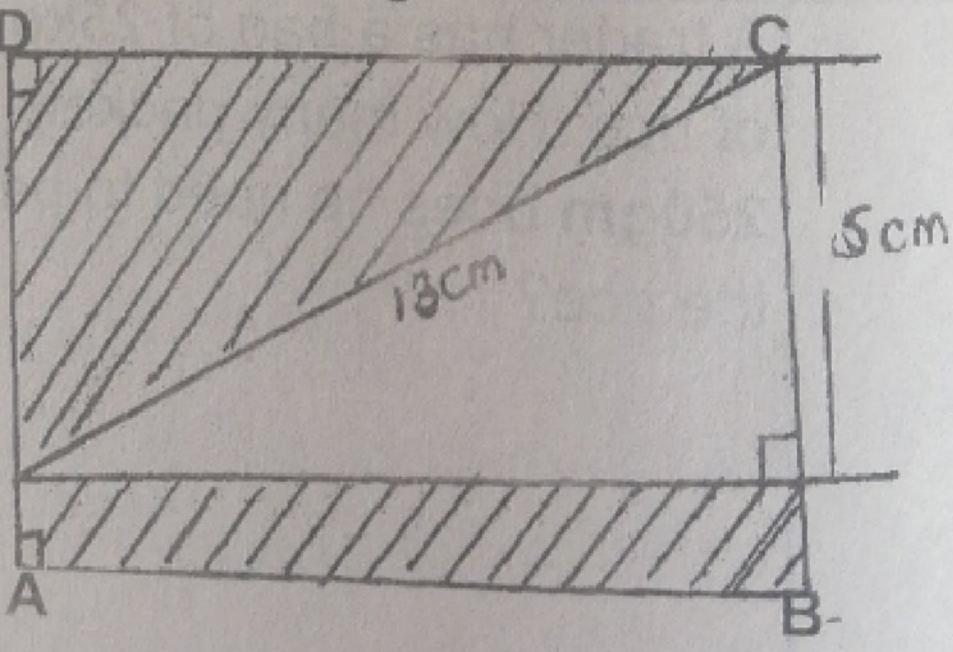
Use a ruler, a pencil and a pair of compasses only to construct a perpendicular line from point B to meet line PQ at X.

B



9.	Write CCIX in Hindu-Arabic numerals.	10.	Work out the mean of $4p + 3, 7, 5, 2p$ and $15 + 4p$.
11.	Mariam banked 20 consecutive notes of fifty thousand shillings. Find the first note if the last was numbered AY6746586 .	12.	Given that set M = {a, b, c}; List all the subsets of set M .
13.	A trader has a bag of 25kg of rice. How many packets of 250gm does he need to pack the rice?	14.	The interior angle sum of a regular polygon is 720° . Calculate the number of sides the polygon has.



15.	<p>The ratio of 20 and X is 2:3 respectively of the two numbers. Find the Lowest Common Multiple of 20 and X if their G.C.F is 10.</p>	16.	<p>Work out the number whose standard form is 2.95×10^{-3}</p>
17.	<p>A car covered 144km in 2 hours. Express the speed of the car in metres per second.</p>	18.	<p>Shade 25% of the diagram.</p> 
19.	<p>A trader sold two cocks at sh.120,000 which he bought at sh. 45,000 each. Work out the percentage profit he made.</p>	20.	<p>The diagram below shows a triangle enclosed in a rectangle ABCD. Use it to find the length AD.</p> 



SECTION B: 60 MARKS

Attempt all questions in this section.

Marks for each part of the question are indicated in the brackets

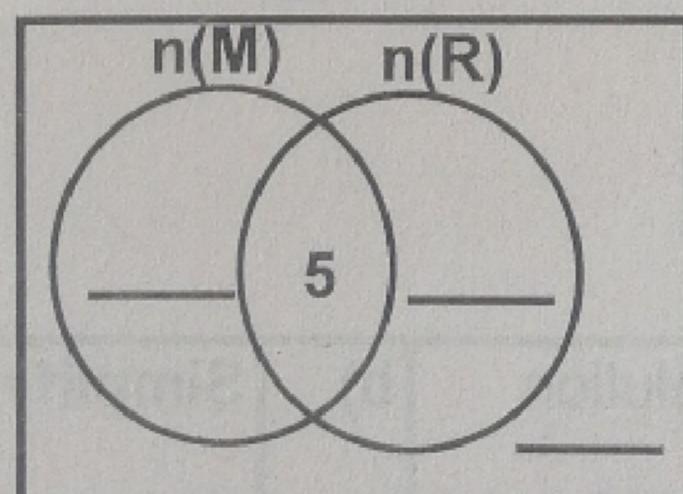
- 21.a) Use distributive property to work out: $(23 \times 18) + (18 \times 27)$ (02 marks)

- b) Solve for y in $2^y \div 2^3 = 32$. (03 marks)

22. In a class of **48** pupils, a third of the pupils eat Matoke (**M**) only, 3x pupils eat rice (**R**) only, 5 pupils eat both Matoke and rice while 3 pupils do not eat any of the two kinds of food.

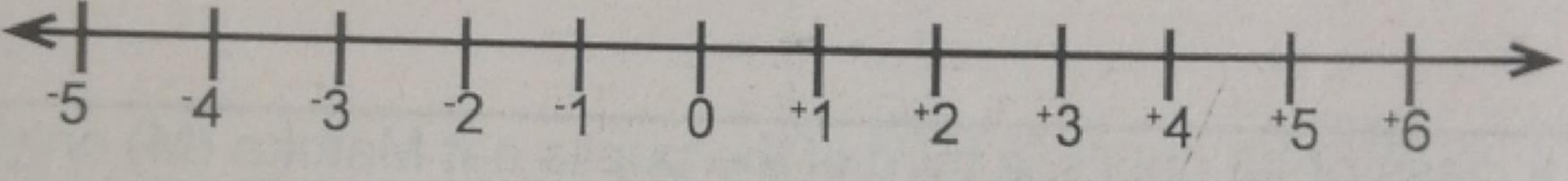
- a) Complete the venn diagram below using the above information. (03 marks)

$$n(\mathcal{E}) = 48$$



- b) Work out the number of pupils who eat rice. (03 marks)

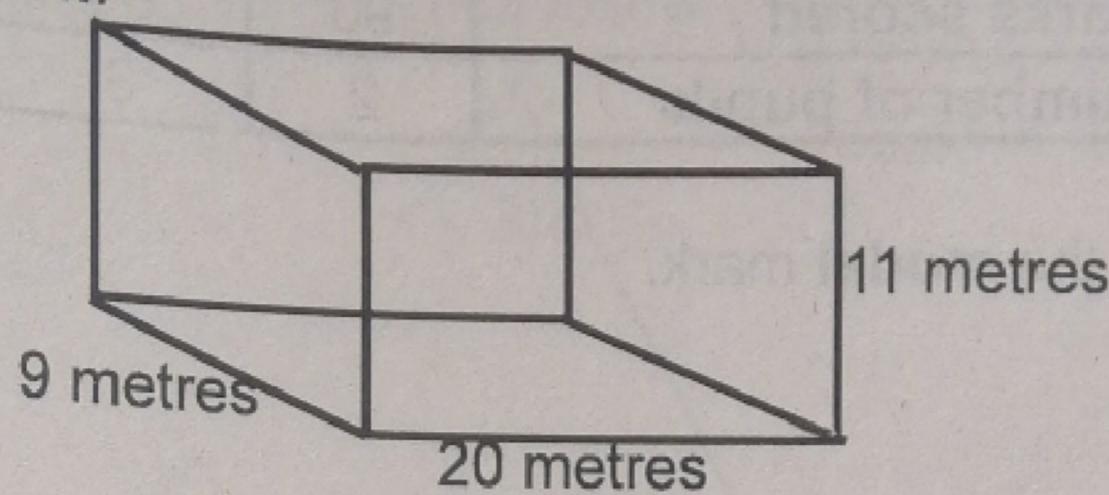


23.	<p>Okumu spent $\frac{3}{5}$ of her salary on rent, $\frac{1}{4}$ of the remainder on food and saved sh. 240,000.</p> <p>a) Find the fraction she saved. (02 marks)</p> <p>b) Calculate her monthly salary. (03 marks)</p>
24. a)	<p>Use the number line to work out: $+6 - -2$. (03 marks)</p>  <p>b) If today is Friday, which day of the week was it 28 days ago? (02 marks)</p>
25.a)	<p>Solve and write the solution set for y if $2(y-7) \leq 8$. (03 marks)</p> <p>b) Simplify: $\frac{2}{3}(6x + 12) - \frac{1}{4}(8x + 12)$ (02 marks)</p>



26.

The diagram below is a rectangular tank. Study and use it to answer the questions that follow.



- a) Find the sum of all the edges.

(02 marks)

- b) Calculate its total surface area.

(03 marks)

- 27 a) Using a ruler, a pencil and a pair of compasses only, construct a rhombus ABCD, where line AB is 7cm, angle ABC is 120° and diagonal AC is 12cm.

(05 marks)

- b) Measure AD = _____ cm. (01 mark)



28.

The table below shows marks scored and number of pupils who sat a special examination. Use it to answer the questions that follow.

Marks scored	90	80	75	60
Number of pupils	2	3	4	3

a)

Find the modal mark.

(01 mark)

b)

How many pupils scored **above** the average mark?

(03 marks)

29.

The prime factors of **36** and **54** are given below;

$$\text{PF}_{36} = 2^2 \times 3^2$$

$$\text{PF}_{54} = 2^1 \times 3^3$$

Use the above prime factors to:

a)

Find the Greatest Common Factor (GCF) of 36 and 54.

(02 marks)

b)

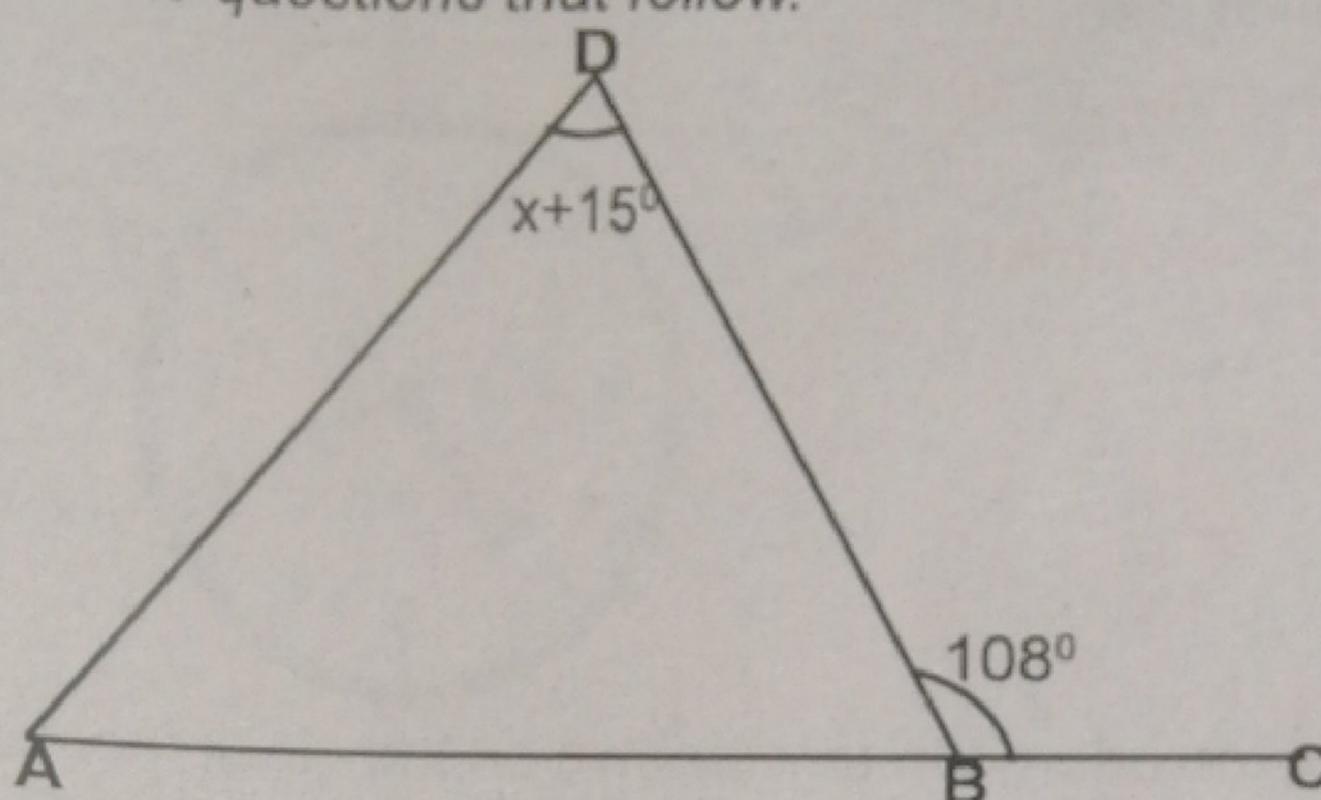
Work out the LCM of 36 and 54.

(02 marks)



30.

The diagram ABD is a triangle, line ABC is a straight line, angle ADB is $x + 15^\circ$, angle DBC is 108° and angle DAB is twice angle ADB. Study and use it to answer the questions that follow.



- a) Find the value of x in degrees.
(03 marks)

- b) Work out the size of angle DAB.
(02 marks)

31.

The table below shows different denominations, number of notes and amount. Study and use it to answer the questions that follow.
Complete the blank spaces.

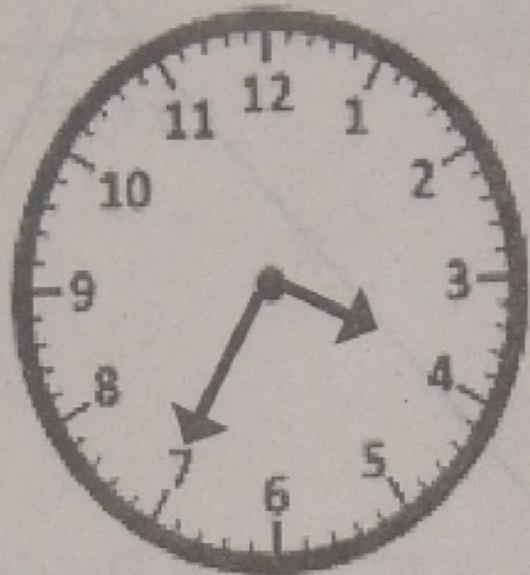
Denominations	Number of notes	Amount
sh.5000	200 notes	sh._____
sh. 10,000	_____ notes	sh.1,000,000
sh._____	50 notes	sh.1,000,000
sh.50,000	_____ notes	sh._____
TOTAL		sh. 8,000,000

(05marks)



32.

Below is a 12 hour clock face. Study and use it to answer the questions that follow.



- a) Tell the afternoon time shown on the clock face above in a 24 hour clock system. (02 marks)
- b) If an activity that started at the time shown on the clock face above took 2 hours and 25 minutes, draw a clock to show the ending time of the activity. (03 marks)



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P.7 MATHEMATICS MID -TERM II EXAMINATION - 2024

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